

Achievements of Outgoing Kashima 26m VLBI Antenna for Geodesy and Surveying

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The Kashima 26-m parabola antenna (KASHIM26), constructed in 1968 at Communication Research Laboratory (CRL) Kashima, had played a key role in R&D of radio communication technology and its application to Very Long Baseline Interferometry (VLBI). International VLBI experiments including KASHIM26 led to confirmation of the plate tectonics by actual geodetic measurements in 1980s. After transferred to Geographical Survey Institute (GSI) in 1992, KASHIM26 has been active in various international VLBI programs as the core site of Japan, contributing to the maintenance of International Terrestrial Reference Frame (ITRF) and determination of Earth Orientation Parameters (EOP).

However, due to its inevitable aging after 34-year operations, KASHIM26 is out of service from October 2002, and now under de-construction from January 2003. The role of KASHIM26 has been inherited to Tsukuba 32-m VLBI antenna at GSI, which was newly established in 1998.

In this paper, the history and achievements of outgoing KASHIM26 will be reviewed with a short report on its de-construction process. One of the largest achievements is that KASHIM26 was used as the de facto origin of the Japanese Geodetic Datum 2000, which superseded the Tokyo Datum in April 2002 with a revision of Survey Act. In other words, KASHIM26 determined the position of Japan in the world.